

ARC-FAULT PROTECTION

The Canadian Electrical Code requires all branch circuits in dwelling units supplying 125V receptacles rated 20A or less be protected by a Combination Type Arc-Fault Circuit Interrupter (AFCI) that is designed to detect both series and parallel arcing conditions.*

Q What is an Arc-Fault ?

A An Arc-Fault is an unintended arc created by current flowing through an unplanned path.

Q What are the dangers of an Arc-Fault ?

A Arcing creates excessive heat that can easily ignite surrounding materials, such as wood framing or insulation, resulting in a hazardous fire.

Q What are the typical causes of Arc-Faults?

A Arcing in installed electrical wiring from physical damage:

- Wires accidentally punctured by nails or screws
- Cables that are stapled too tightly against wall studs
- Animal and vermin chewing through wiring insulation
- Heat, humidity and voltage stress

Arcing at loose connections or joints in the circuit or at outlets.

Arcing in appliances or extension cords:

- Bent or crimped cords
- Brittle or aged cords
- Cords under or behind furniture

Q What has changed in the 2015 Canadian Electrical Code?

A The new Rule 26-724(f) of the 2015 Canadian Electrical Code requires ALL branch circuits in dwelling units supplying 125V receptacles rated 15A and 20A be protected by a **Combination Type Arc-Fault Circuit Interrupter (AFCI)** that is designed to detect both series and parallel arcing conditions*.

Q How does one know if Combination Type AFCIs are required in my area?

A The enforcement and interpretation of the Code is always up to the discretion of the provincial and local inspection authority having jurisdiction. Always check with your local authority.

** Exceptions: Branch circuits supplying receptacles installed in accordance with Rules 26-710(f) and 26-712(d) (i), (iii), (iv) and (v), and those supplying only one receptacle for the connection of a cord-connected sump pump, are exempt from the requirement for Arc-Fault protection.*